

Chapter 5

Promoting Local Collaboration on Waste Management: Lessons from Selected Cases in the Philippines

Vella Atienza

October 2020

This chapter should be cited as

Atienza, V. (2020), 'Promoting Local Collaboration on Waste Management: Lessons from Selected Cases in the Philippines', in Kojima, M. (ed.), *Regional Waste Management – Inter-municipal Cooperation and Public and Private Partnership*. ERIA Research Project Report FY2020 no. 12, Jakarta: ERIA, pp.122-134.

Chapter 5

Promoting Local Collaboration on Waste Management: Lessons from Selected Cases in the Philippines

Vella Atienza²⁹

Abstract

Waste management has becoming more challenging especially to local government units (LGUs), considering the responsibilities entrusted to them as mandated by laws and their limitations in terms of technical and financial resources. Hence, governments have been searching for possible ways on how to deliver more efficient and quality services in terms of waste management. In recent years, the use of public–private partnerships in developing Asia has expanded which reduced the risks and responsibilities of the state, lowered fiscal costs, and widened access to quality public services (Deolalikar, Jha, and Quising, 2015). This chapter provides a brief review of solid waste management in the Philippines (Atienza, 2019), particularly on the legal bases for promoting local collaboration in waste management, the status and types of local collaboration, and the challenges and opportunities. Section 5.2 focuses on some emerging trends on public service delivery such as the promotion of public–private partnerships and their relation to waste management, amongst others. Further, it presents the rationale for promoting local collaboration on solid waste management towards more efficient and effective public service delivery. Based on the experiences of the selected case studies and key informant interviews with local officials and the private sector, this chapter identifies the facilitating and the hindering factors for local collaboration. The last part provides some possible recommendations towards effective collaboration on solid waste management.

Keywords: Local collaboration, waste management, Philippines

²⁹ Associate Professor, Institute for Governance and Rural Development – College of Public Affairs and Development, University of the Philippines Los Baños.

5.1. Introduction

Waste management has becoming more challenging, especially to local government units (LGUs) considering the responsibilities entrusted to them as mandated by laws and their limitations in terms of technical and financial resources. Hence, governments have been searching for possible ways on how to deliver more efficient and quality services in terms of waste management. In recent years, the use of public–private partnerships (PPP) in developing Asia has expanded, which reduces the risks and responsibilities of the state, lowers fiscal costs, and widens access to quality public services (Deolalikar, Jha, and Quising, 2015).

In the Philippines, the solid waste disposal or environmental management system is one of the devolved functions to the LGUs as cited in the Republic Act 7160 (RA 7160), also known as the Local Government Code of 1991. However, despite the enactment of the Republic Act 9003 (RA 9003), also known as the Ecological Solid Waste Management Act of 2000 in 2001, the problems on managing waste remains one of the pressing concerns in the country. The records of the National Solid Waste Management Commission (NSWMC) showed that even after almost 2 decades since the RA 9003 came into force, there is still weak compliance amongst LGUs, especially in terms of constructing sanitary landfill (SLF) facilities as final disposal sites for residual waste as mandated by the law. This reveals that trying to solve the concerns on waste management by the LGUs alone seems difficult due to their limitations as cited earlier. Hence, there is a need to promote local collaboration to effectively address waste management concerns in the country.

To provide a brief background of the state of local collaboration in the Philippines particularly on waste management, this section presents the summarised version of an earlier report by Atienza (2019). As cited in the report, there are legal bases that support local cooperation or clustering in the delivery of public services such as solid waste management. Amongst the related laws and policies are the 1987 Constitution of the Republic of the Philippines, the Republic Act 7160 (RA 7160), and the Ecological Solid Waste Management Act of 2000 (RA 9003). In terms of the construction of SLF facilities, the report further reveals that there are two types of collaboration in the country: (i) the inter-government or inter-LGU partnership, and (ii) private enterprise utilised by LGUs. Both types of collaboration use a memorandum of agreement (MOA) or contract as the legal instrument for entering such kind of partnerships in delivering waste management services. Based on the experiences of the selected cases discussed in the report, the LGUs can save huge amounts through clustering, which they can utilise to deliver other public services in the community.

Therefore, the challenge now is how to promote local collaboration in waste management. Section 5.2 discusses the emergence of various strategies on delivering public services and how these could be applied to managing waste management.

5.2. Emerging Trends on Public Service Delivery and Waste Management

This section focuses on some emerging trends on public service delivery such as the promotion of public–private partnerships (PPP) and their role in improving the provision of public services. There is a large disparity in the delivery of public services in developing Asia within countries as most of its benefits ‘tend to accrue disproportionately to the nonpoor’ (Deolalikar, Jha, and Quising, 2015). In addition, there are large disparities between rural and urban areas in terms of access to public services (Deolalikar, Jha, and Quising, 2015). In the Philippines, this situation can also be observed in the provision of public services such as education, health, and sanitation including waste management, amongst others. Hence, there is a need to improve the access and quality of public services through collaboration between and amongst state actors as well as the private sector and other institutions.

Just like other developing countries, the Philippines continues to search for possible effective and sustainable solutions to address the various waste management concerns. Recently, the DENR Environmental Management Bureau (EMB) issued the Memorandum Circular (MC) No. 2019-008 adopting the NSWMC Resolution No. 669 Series of 2016 ‘Guidelines Governing the Establishment and Operation of Waste-to-Energy Technologies for Municipal Solid Waste’. The MC will serve as guide to all the EMB regional directors in providing support to LGUs and other stakeholders in the establishment and operation of the waste-to energy (WTE) facility. The guidelines include the registration and permitting requirements, standards and procedures on the establishment and operation of commercial WTE technologies utilizing municipal solid wastes. WTE refers to the ‘energy recovered from waste, usually the conversion of non-recyclable waste materials into useable heat, electricity, or fuel through a variety of processes’ (DENR-EMB, 2019, p.3). The establishment of WTE facilities can provide possible sustainable solutions on addressing waste management concerns. It could be an avenue for possible collaboration amongst LGUs, the private sector, and other relevant stakeholders.

Public private service delivery is ‘an alliance, collaboration or agreement between a public agency and a private organization for the provision of a public service (Deolalikar, Jha, and Quising, 2015). Through PPP, the private sector can bring in the capital and experience to address the infrastructure gap (PPP Center, 2014). In the Philippines, there are many

examples of successful projects through PPP arrangements, such as in providing more efficient transportation, public markets, amongst others. To cite an example, is the establishment of the Mandaluyong City Public Market rebuilding through the build–operate–transfer (BOT) system. The old Mandaluyong Public Market was totally destroyed by fire in 1990, hence, many vendors were transferred to street sidewalks and parks. This created a burden to the local government of Mandaluyong City. It needed about ₱100 million to construct a new public market and with 20% interest, it would require a huge amount should the LGU decide to borrow the required amount. Thus, the local government entered into a PPP arrangement through BOT in building the shopping mall with a public market on the ground floor. The city government controls and supervises the public market and it leases the whole building and shopping mall to the developer, except for the public market. As incentives to the developer, it is exempt from the mayor’s permit for the first 2 years of operation, from real estate tax for 40 years, and the LGU assisted in the search for prospective stockholders. Hence, through this PPP arrangement, Mandaluyong City was able to rebuild the public market without cost. Further, it generated employment, solved the problems on traffic, flooding, pollution, and more efficient waste management (PPP Center, 2014).

5.3. Rationale for Promoting Local Collaboration on Solid Waste Management

Based on the NSWMC database in 2015, waste generation is 40,000 tons/day at the national level, and 9,000 tons/day in Metro Manila. Waste generation per capita ranges from 0.32–0.71 kilogram/day at the national level, with 0.71kg/day in Metro Manila. In terms of waste collection efficiency, it ranges from 40% to 85% at the national level, with 85% in Metro Manila (NSWMC database, 2018). Sometimes, the lack of capacity at the local level hinders the ability to reap the full benefits of decentralisation and local officials may not fully exploit other opportunities to deliver a better service (Deolalikar, Jha, and Quising, 2015). This chapter provides two reasons for promoting local collaboration on waste management in the country: (i) recognition of the limitation of the local government in terms of capacity and resources to provide more efficient and effective public service delivery; and (ii) recognition of the advantages of collaborative approaches between and amongst local governments or through PPP. Attracting the corporate sector and involving them as key stakeholders can facilitate increased access to human resources, funding, and technical expertise for the local government and the communities (Cardinal, 2018).

5.4. Facilitating and Hindering Factors for Local Collaboration

Based on the record of the NSWMC DENR-EMB as of September 2018, there were only 141 operational SLF facilities and 30 SLF facilities under construction amongst the total 1,634 cities and municipalities in the country (NSWMC-EMB, 2018). This data show that there is still weak compliance in the RA 9003 especially in terms of constructing SLF facilities as final disposal sites for residual waste. Although there are some initiatives amongst LGUs to form clusters in constructing SLF facilities, there are some of challenges or hindering factors for such collaboration such as political and social issues on the terms of office of local government officials, the difficulty of finding a host LGU due to the ‘not-in-my-backyard’ syndrome, amongst others.

Cases of Local Collaboration on Solid Waste Management

The next section lifts selected cases of local collaboration on waste management as cited in the earlier report (Atienza, 2019). Based on their experiences and key informant interviews with local officials and the private sector, it will identify the facilitating and the hindering factors for local collaboration. The first two cases are examples of inter-LGU cooperation; and the next cases are examples of privately-managed SLF facilities being utilised by the LGUs.

The Surallah Cluster SLF, South Cotabato Province

One of the success stories of inter-LGU collaboration is the Surallah Cluster SLF in South Cotabato. This was initiated by the provincial office of South Cotabato since the financial resources needed to construct an SLF facility was too high for an LGU, the consolidated efforts amongst LGUs is a more feasible option. The MOA for the Surallah Cluster Sanitary Landfill for Sustainable Solid Waste Management between the Province of South Cotabato represented by the governor and the six member municipalities represented by their mayors, was signed in 2009 and the facility became operational in 2011. The Municipality of Surallah is the host LGU for the common SLF facility and it receives residual waste generated from the member LGUs. It is a 6-hectare cluster SLF facility, has a capacity of 75,000 cubic metres, and is estimated to last for 14 years (until 2024). It is located kilometres from Surallah town proper and has its own leachate treatment facility by pond method. This cluster SLF facility was a recipient of the Galing Pook Award in 2014 (Municipality of Surallah 10 Year Solid Waste Management Plan: 2015–2024). The MOA for the Surallah Cluster SLF facility was renewed in 2016 with the addition of two member municipalities.

In terms of economies of scale, it reveals that it is more economical for a cluster SLF rather than for an individual SLF. In the scenario, the required investment would be ₱54,000,000 from the six LGUs, where they would have to build their own SLF facility, excluding manpower, equipment, and operational costs. But with the cluster SLF, the investment needed is only ₱15,000,000 with the capacity of 30 tons per day excluding manpower, equipment, and operational costs. Thus, with the cluster SLF, the LGUs can save huge amount which they can utilise to deliver other public services in the community (Balucanag, n.d.).

Albuquerque Cluster SLF, Bohol Province

The Albuquerque Cluster SLF is another example of inter-LGU cooperation in the province of Bohol. The cluster SLF is a 6.9-hectare facility located about 12 kilometres from the capital city of Tagbilaran. It became operational in 2017, about 15 years after the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) and the local government unit of Albuquerque signed an MOA in 2011. TIEZA (presently the Philippine Tourism Authority or PTA) provided the P300 million for the construction and development of the facility (Obedencio, 2017). Based on the MOA, Albuquerque, as the host ensures the establishment and operation of the SLF facility in accordance with the law, allows continuous access of garbage vehicles of cluster LGUs and their private entities, and continuously complies with regulatory maintenance requirements. The cluster LGUs on the other hand, provide their own transport equipment, materials recovery facility, and transfer station; comply with the disposal schedule and procedures established by the board; and pay a tipping fee to the Albuquerque LGU through automatic allocations (Albuquerque SLF, 2012).

Privately managed SLF facilities being utilised by LGUs

Currently, the common type of partnership on solid waste management in the Philippines are the privately managed or operated SLF facilities, which are being utilised by a group of LGUs. Examples of this kind of cooperation are the Navotas SLF facility in the National Capital Region and the Rodriguez Rizal SLF facility in Rizal Province that receive waste from the LGUs in Metro Manila; the Pilotage SLF facility in San Pedro, Laguna which receives waste from the LGUs in Laguna Province, including San Pedro, Sta. Rosa, Los Banos, and Carmona, amongst others.

The 40-hectare Navotas SLF facility is the first engineered SLF facility in Metro Manila privately managed by the Phil Ecology Systems Corporation. It accommodates 1,500 tons per day of municipal solid waste from various cities in the National Capital Region and

uses landing craft transport barges to transport waste from the transfer station to the SLF site (Phil Ecology Systems Corporation, 2019). The Rodriguez Rizal SLF facility is privately operated and owned by the International Solid Waste Integrated Management Specialist Inc. The Pilotage SLF facility is a 12-hectare facility operated by the Pilotage Trading and Construction located in San Pedro, Laguna.

Facilitating and Hindering Factors for Local Collaboration

Based on the experiences of the selected cases above, and through the conduct of key informant interviews with local officials and the private sector, this study identifies the facilitating and the hindering factors for local collaboration on solid waste management:

Facilitating Factors

- 1) The stricter enforcement of the RA 9003, which mandates the LGUs to implement the law and where they can be sanctioned for non-compliance. Section 52 of the RA 9003 cited that any citizen may file a suit against LGU officials for failing to implement the law. In 2016, the NSWMC filed with the Office of the Ombudsman complaints against 50 LGUs and more than 500 officials for failing to comply with the RA 9003. Hence, local officials are obliged to find ways to implement the laws such as through local collaboration.
- 2) The limitation of the LGUs to construct waste management facilities by themselves due to huge resources required, and hence, the need to either become a part of an inter-LGU partnership or enter into a contract with the private sector that is providing waste management services.
- 3) Another driving factor for LGUs is the inclusion of the compliance to the RA 9003 as one of the parameters to receive awards or recognitions such as the Seal of Good Local Governance and other innovative programmes from the national, provincial, and/or regional agencies.
- 4) Political will of the local leaders to enter into an agreement through this kind of collaboration or clustering. The signing of an MOA amongst member LGUs provides clear guidelines on attaining the agreed purposes of such kind of collaboration. For cluster SLF facilities between and amongst LGUs, the important sections of the MOA includes the core principles in entering into the collaboration; the obligations of the host LGU and of other member LGUs; the creation of the board and its functions, credit financing, dispute resolution, effectivity and pre-termination clause, amongst others.

- 5) For privately-managed SLF facilities utilised by LGUs, the contract includes, amongst others, the obligations of the private sector such as receiving or accepting residual waste from the partner LGUs, and processing of the waste in accordance with the RA 9003 and its implementing guidelines. On the other hand, the obligations of the local government is to ensure that waste generated will be hauled and dumped only at the facility owned by the partner organisations. Normally, a host LGU or the provincial or city government where the facility is located, transact with other LGUs that are dumping their waste at the facility, whilst the host LGU enters the agreement with the private sector who owns and operates the facility.

Hindering Factors

- 1) Term of the local chief executives and the long process of establishing local collaboration particularly for the cluster SLF facility. In the Philippines, the term of a local chief executive is 3 years per term with a maximum of 3 terms. In entering this kind of collaboration, it usually takes many years from the planning until the operation of the facility. To cite an example, the Surallah Cluster SLF started with the inclusion of the establishment of the cluster SLF facility in their 10-year solid waste management plan around 2005, but the MOA between the province of South Cotabato and the six member municipalities was signed in 2009. The facility became operational in 2011. In the case of the Albuquerque Cluster SLF facility in Bohol Province, the provincial Ecological Solid Waste Management Board was created and the Technical Working Group was reconstituted in 2002–2004; the 11 LGUs signed MOAs to form a cluster in 2005–2007, followed by a series of meetings and dialogues with officials and other stakeholders in 2008–2010, and finally phase 1 of the SLF facility was completed in November 2008 (Albuquerque Cluster SLF Meeting, 25 November 2011). The facility became operational in 2017 (Obedencio, 2017). Hence, it is difficult to enter into this kind of collaboration or to sustain it, especially when there is a change of leadership. This condition also discourages many LGUs to enter into this kind of partnership arrangement.
- 2) The difficulty of finding a host LGU due to strong resistance of the community or the not-in-my-backyard (NIMBY) phenomenon. In any government programmes or projects, the acceptance of the community matters to many local government officials because continuing a programme without social acceptance seems like ‘political suicide’ for them.

- 3) Lack of political will and initiatives of the local government officials. As mentioned in 2) above, entering into this kind of agreement without addressing the resistance of the people may have a negative impact on their political career. It takes strong awareness campaigns to change the perception and behaviour of the people in understanding this kind of initiative in addressing waste management problems. Further, the complexities in terms of the division of labour, cost and benefit sharing, and the possible loss of power or control over its own locality discourage some officials to enter into this kind of collaboration.
- 4) From the side of the private sector, some of the hindering factors for entering into this kind of collaboration are the lack of assurance for the sustainability of operation due to limited volumes of waste generation, the lack of assurance that the partner local government units will allocate funds for the provision of waste management services, and other political issues that could deter the partnership agreement.

5.5. Towards Effective Collaboration on SWM: Lessons Learned from Selected Cases

This last section provides some possible recommendations on how to reduce the hindering factors and to strengthen the facilitating factors towards more effective and sustainable collaboration on solid waste management. In discussing the delivery of public services such as waste management, the provider of the services cannot be excluded. Hence, governance plays a significant role in the delivery of public services. It is always a challenge on how 'to improve the quality of public services, which is intricately linked to the larger issue of dysfunctional governance systems, including, among other things, lack of accountability and responsiveness, corruption, leakage of public funds meant for service delivery, and rent-seeking by public providers' (Deolalikar, Jha, and Quising, 2015, p.152).

In relation to the above discussion on the facilitating and hindering factors for collaboration, the following can be the possible recommendations on how local collaborations can be promoted:

- 1) Strengthening the promotion of local collaboration through policy support including the provision of both technical and financial assistance from the national or provincial government. In the case of the Surallah Cluster SLF facility, the provincial government of South Cotabato provides the technical and financial assistance for the improvement of the access road from the national highway to the SLF site,

assists the host LGU in developing and maintaining the facility, in securing necessary permits, and in monitoring the performance of the cluster and host LGUs in fulfilling the obligations cited under the cluster agreement.

- 2) Conduct strong information, education, and communication campaigns to ensure social acceptance. In the experience of the Surallah Cluster SLF facility, Elbe Balucanag (supervising environment management specialist and chief, Provincial Environment Management Office, Environment Management Division) cited that the provincial LGU of South Cotabato provides capacity building and information campaigns to ensure social acceptability of the clustering scheme (Telephone Interviews, Balucanag, 2018; 2020).
- 3) Strengthen commitment of LGU officials and other parties to ensure the sustainability of the collaboration. The LGU must exhibit strong commitment to share part of its resources to the partnership or collaboration. In a clustered SLF, it is cited in the MOA that the member LGUs must allocate budget for paying their obligations to the host LGU such as the tipping fees, amongst others.
- 4) Conduct field visits to the successful cases of collaboration. The exposure and lessons that can be gained through this activity will encourage LGU officials and other sectors on the benefits and or advantages of local collaboration. It can also provide practical and proven solutions on addressing waste management through actual experiences from other LGUs.
- 5) Partnering with other sectors such as nongovernment organisations, academe, and research institutions, amongst others. The LGUs do not need to carry the burden alone. Although the RA 9003 mandates the LGUs to be the main implementer of the law, it also encourages participation of other stakeholders (RA 9003, Section 5q).
- 6) Other initiatives from the national government such as inter-agency forums and multi-stakeholder consultation to provide an avenue for the different sectors to discuss the concerns and issues on waste management and to provide possible practical solutions such as the promotion of local collaboration and public–private partnerships towards attaining more effective and sustainable waste management.

As adapted from Besley and Ghatak (2007) the five ‘Ms’ – mobilise, mission, match, motivate, and monitor can be used to harness public–private partnerships and in selecting appropriate delivery mechanisms (As cited in Deolalikar, Jha, and Quising, 2015). Mobilise – the state can mobilise potential private sector partners by providing the required legal and administrative framework for this kind of arrangement such as passing the BOT laws,

capacity building of state agencies on soliciting and evaluating bids, and in monitoring and regulating performance (ADB, 2008 as cited in Deolalikar, Jha, and Quising, 2015). Mission – refers to the organisational goals. Match is the process of matching the organisational goals to the type of public service; Motivate is the mechanism to motivate private sector partners through the provision of pecuniary or non-pecuniary incentives, or both. Monitor is the performance of the partners (Deolalikar, Jha, and Quising, 2015). In the Surallah Cluster SLF facility, the provincial LGU provides assistance in securing necessary permits and in monitoring the performance of the cluster and host LGUs in fulfilling the obligations cited under the cluster agreement.

Recognising the limitations of local government in terms of capacity and resources to provide more efficient and effective public service delivery; and the advantages of collaborative approaches between and amongst local governments or through PPPs provide strong justification to promote local collaboration on waste management.

Acknowledgements

The author would like to thank the following key informants for generously sharing data and information, and their knowledge and experiences on waste management: John M. Cerezo, officer-in-charge (OIC) – provincial director, Department of Interior and Local Government (DILG) Laguna; officials and staff from the Provincial Government Environment and Natural Resource Office (PG-ENRO) Laguna – Marlon P. Tobias, OIC, PG-ENRO and provincial agriculturist; Mary Grace G. Bannagao, assistant department head; Ricarte J. Castillo, division head, Waste Management and Pollution Control Division; and Evangeline T. Nicandro, technical staff; Nery Santiago, Alterna Verde Corporation; Elbe Balucanag, South Cotabato Provincial Environment Management Office Environment Management Division; and Iligio Ildfonso and Ma. Delia Cristina Valdez, DENR-EMB.

References

- Albuquerque Sanitary Landfill Facility (2012), 'Feasibility Study and Detailed Engineering Design'.
- Atienza, V. (2019), 'Inter-Municipal Cooperation on Solid Waste Management in ASEAN: The Case of the Philippines', in M. Kojima (ed.), *Toward Regional Cooperation of Local Governments in ASEAN*. ERIA Collaborative/Support Research Report, IDE–JETRO.
- Balucanag, E.M. (n.d.), 'Solid Waste Management Program: The South Cotabato Experience'.
- Balucanag, E.M. (2020), Telephone Interviews 13 October 2018 and 27 February 2020.
- Besley, T. and M. Ghatak (2007), 'Reforming Public Service Delivery', *Journal of African Economies*, 16 (Supplement 1), pp.127–56.
- Cardinal, R. (2018), 'Private Sector Participation in Addressing Sustainable Development Challenges in Cambodia, Indonesia, Philippines, and Thailand', in Chua, et al. (eds), *Local Contributions to Global Sustainable Agenda Case Studies in Integrated Coastal Management in the East Asian Seas Region*. Quezon City, Philippines: Partnership in Environmental Management for the Seas of East Asia (PEMSEA) and Coastal Management Center.
- Deolalikar, A.B., S. Jha, and P.F. Quising (eds.) (2015), *Governance in Developing Asia: Public Service Delivery and Empowerment*. Manila: Asian Development Bank and Cheltenham, UK, and Northampton, US: Edward Elgar Publishing Ltd.
- Department of Environment and Natural Resources – Environmental Management Bureau (DENR–EMB) (2019), DENR–EMB Memorandum Circular (MC) No. 2019-008, adopting the NSWMC Resolution No. 669 Series of 2016, 'Guidelines Governing the Establishment and Operation of Waste-to-Energy Technologies for Municipal Solid Waste'.
- Municipality of Surallah, South Cotabato 10 Year Solid Waste Management Plan: 2015–2024.
- National Solid Waste Management Commission – Environmental Management Bureau (NSWMC–EMB) (2018), Compliance Updates: RA 9003. The official website of NSWMC–EMB. <http://nswmc.emb.gov.ph> (accessed 22 November 2018).

- Obedencio, R.V. (2017), 'To Serve 17 LGUs; Cluster Sanitary Landfill Finally Opens', *The Freeman*, 5 February. <https://www.philstar.com/the-freeman/region/2017/02/05/1669217/serve-17-lgus-cluster-sanitary-landfill-finally-opens> (accessed 22 February 2019).
- Phil Ecology Systems Corporation (2019), Official website. <http://www.philecology.com/philippine-sanitary-landfill/> (accessed 22 February 2019).
- Public Private Partnership Center (2014), 'Training-of-Trainers for Local Capacity Building Institutions (LCBI)', University of the Philippines Los Banos – College of Public Affairs and Development, 14–16 October.
- Republic of the Philippines, RA 9003. Ecological Solid Waste Management Act of 2000. <http://emb.gov.ph/wp-content/uploads/2015/12/RA-9003.pdf> (accessed 24 February 2019).
- Republic of the Philippines, 1987 Constitution of the Republic of the Philippines. <https://www.officialgazette.gov.ph/constitutions/the-1987-constitution-of-the-republic-of-the-philippines/the-1987-constitution-of-the-republic-of-the-philippines-article-x/> (accessed 24 February 2019).